ACMAT118 Spring 2024
Professor Manguba-Glover
Section 6.2-6.4 Homework (HW 6) Name: _____

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for full credit.

Due next class. Students who turn assignments in late (or do not attempt a problem) forfeit their ability to rewrite those problems for credit.

1. Complete the blank unit circle that was provided to you during class. You'll get a point for this problem as long as you show me, in person, that you've completed it.
2. Assume that θ is an angle in standard position whose terminal side contains the point $(-5, -12)$. Find the six standard trigonometric functions for θ.
3. Assume that θ is an angle in standard position whose terminal side contains the point $(7, -24)$. Find the six standard trigonometric functions for θ.
4. Find the five other standard trigonometric values for θ if $\sin\theta = -\frac{3}{5}$ and $\pi < \theta < \frac{3\pi}{2}$
5. Determine the other 4 standard trigonometric values for θ if $\cos\theta = -\frac{8}{17}$ and $\tan\theta = -\frac{15}{8}$.
6. The terminal side of an angle θ in standard position lies on the line $y = -3x$ in quadrant II. Find $\sin\theta$, $\cos\theta$, and $\tan\theta$. (Hint: If you want to avoid using variables, you can find any point on the line that is in quadrant II).
7. The angle $-\frac{11\pi}{6}$ is in the same position as what angle on the unit circle? Use this to find sine, cosine, and tangent for $-\frac{11\pi}{6}$.
8. The angle $\frac{5\pi}{2}$ is in the same position as what angle on the unit circle? Use this to find sine, cosine, and tangent for $\frac{5\pi}{2}$.
9. Convert $300°$ to radians then find sine, cosine, and tangent for $300°$.
10. Convert $-120°$ to radians then find sine, cosine, and tangent for $-120°$.